VEHICULAR ANTENNA WITH IMPROVED SCREENING.

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The invention concerns a vehicular antenna with improved screening for receiving satellite signals and telephone communications.

It is known that to receive satellite signals and to enable telephone communications from vehicles the so-called "combined" antennas are used, provided with a single antenna base applied to the vehicle structure, which supports a satellite signal amplifier and/or receiver circuit and a monopole for telephone communications.

One of the most important characteristics of these combined antennas is their ability to guarantee the correct reception of the satellite signal even during telephone communications.

However, it is known that during telephone communications the signal which is sent forth is partly picked-up by the satellite signal amplifier and/or receiver and this affects the good reception of the signal itself by the satellite navigation system installed in the motor vehicle.

To this purpose, specially designed techniques set the decoupling value between the telephone signal and the satellite signal and therefore they substantially define the maximum acceptable power of the interfering signal that can be absorbed by the satellite amplifier and/or receiver.

To obtain the decoupling of the antennas, it is necessary to insulate the satellite signal amplifier and/or receiver circuit, so as to prevent the entry of the signal coming from the telephone antenna.

According to a known technique, the problem is solved by encapsulating the satellite signal amplifier and/or receiver inside a metal casing that can be electrically insulated or connected to the structure ground through contact.

The patent application no. EP 0 989 629 describes an example of this kind, that is, a vehicular antenna, a portion of which is of GPS (Global Positioning System) type for satellite communications, while the other portion is a telephone antenna for telephone communications, said vehicular antenna being extremely compact.

According to another known technique, the problem can be solved by fixing the satellite signal amplifier and/or receiver to the base of the antenna, which is suitably shaped, so as to eliminate any opening through which the telephone transmission signal can enter and interfere with the satellite signal amplifier and/or receiver.